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EXAMINER

VO, NGUYEN THANH

ART UNIT	PAPER NUMBER
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2685

DATE MAILED: 06/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/730,121

Applicant(s)

WILLIAM A. GAGE

Examiner

Nguyen T Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 9-11, 13-14, 19-21, 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Mitzutani (US Patent No. 6,731,621, cited by examiner).

As to claim 1, Mitzutani discloses a method for transmitting data to a mobile device 102 (see figure 1; column 5 lines 4-15) in a communication system 101, the mobile device being movable among one or more of a plurality of geographically predefined coverage zones 103 (see column 5 lines 4-15; column 6 lines 55-65) within the communication system, the method comprising storing coverage zone area range data in a storage unit 213 (see column 5 lines 60-64) in at least one stationary network switch 108 (see column 5 lines 33-39, lines 56-65) in the communication system, the coverage zone area range data defining the geographic scope of coverage supported by each of the at least one stationary network switches 108 supporting a geographically predefined coverage zone (see column 6 lines 55-65); storing a global position route table (see figures 3-4; column 2 lines 28-30; column 5 lines 60-64), the global position route table mapping the coverage zone area range data to an interface to which the

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corresponding geographically predefined coverage zone can be reached (see figures 3-4; column 6 lines 55-65; column 7 lines 1-7; column 12 line 12 to column 13 line 39); receiving location data from the mobile device (see column 8 lines 17-37); encapsulating a data packet in an encapsulation packet, the encapsulation packet having a destination address mappable to the location data (see column 14 lines 27-34); evaluating the global position route table to determine at least a portion of a network path to the device based on the location data and the coverage zone area range data (see figures 3-4; column 6 lines 55-65; column 7 lines 1-7; column 12 line 12 to column 13 line 39); decapsulating the encapsulated data packet at a stationary network switch supporting the mobile device within a geographically predefined coverage zone (see column 14 lines 27-61); and transmitting the data packet to the mobile device (see column 12 lines 32-36). Mizutani thus discloses all the claimed limitations.

As to claims 2, 10, 20, Mizutani discloses storing a first mapping between a unicast address (see the IP address in figure 3) of the mobile device 102 and the location data corresponding to the device (see the table in figure 3); receiving a data packet from a terminal, the data packet including the destination address of the mobile device (see the table in figure 3; column 6 lines 55-65); and using the first mapping to determine the location data of the device based on the destination address of the device (see the table in figure 3).

As to claims 3, 11, 21, see the routing table in figure 3 of Mizutani.

As to claim 9, the rejection to claim 1 as set forth above is herein incorporated by reference. In addition, see numerals 108 for the claimed "first router" and "second router"; numeral 230 in figure 2 for the claimed "interface" and numerals 212, 222 in figure 2 for the claimed "a central processing unit".

As to claim 13, Mizutani discloses updating location of the mobile device as claimed (see column 5, line 66 to column 6 line 5; column 11 line 43 to column 12 line 7).

As to claims 14, 23, see Mizutani, column 14 lines 27-61.

As to claim 19, the rejection to claim 1 as set forth above is herein incorporated by reference. In addition, see numerals 108 for the claimed "stationary network switch"; numeral 230 in figure 2 for the claimed "interface" and numerals 212, 222 in figure 2 for the claimed "a central processing unit".

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 12, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani in view of Ahmed (US Patent No. 6,816,460, cited by examiner).

As to claims 4, 12, 22, Mizutani fails to expressly disclose that the location data is comprised of global positioning data as claimed. Ahmed discloses a routing table including location data of a mobile device, wherein the location data is comprised of

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global positioning data (see column 3 lines 52-55; column 4 lines 26-34; column 5 lines 44-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Ahmed to Mizutani, in order to ensure that a packet is properly transmitted to a destination device (as suggested by Ahmed at column 2 lines 1-9, lines 18-21).

5. Claims 5-7, 15-17, 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani in view of Okanoue (US Patent No. 6,240,089, cited by examiner).

As to claims 5, 15, 24, Mizutani fails to disclose mapping the location data corresponding to the device and a respective multicast address to be used as the destination address as claimed. Okanoue discloses mapping the location data corresponding to a mobile device 307 and a respective multicast address to be used as a destination address of an encapsulation packet (see column 5 lines 30-39, lines 57-66; column 6 lines 3-9; column 14 lines 27-34; see also figure 13 which shows destination addresses). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Okanoue to Mizutani, in order to provide a multicasting method capable of forming various multicast groups having different characteristics (as suggested by Okanoue at column 1 lines 46-48).

As to claims 6, 16, 25, the combination of Mizutani and Okanoue discloses routing domain as claimed (see the routing table in figure 3 of Mizutani; see also the routers 611-614 at column 6 lines 62-66 of Okanoue).

As to claims 7, 17, 26, the rejection to claim 5 as set forth above is herein incorporated. In this case, the mapping of the location data corresponding to a mobile device 307 and a respective multicast address to be used as a destination address of an encapsulation packet in Okanou reads on "a second mapping" as claimed.

6. Claims 8, 18, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani in view of Okanou as applied to claims 7, 17, 26 above, and further in view of Ahmed.

As to claims 8, 18, 27, first of all it is clear that the coverage zone area range in Mizutani (see the cell 103 in figure 1) would inherently be a range of global positioning coordinates (see also column 2 lines 28-30). The combination of Mizutani and Okanou expressly disclose that the location data is comprised of global positioning data as claimed. Ahmed discloses a routing table including location data of a mobile device, wherein the location data is comprised of global positioning data (see column 3 lines 52-55; column 4 lines 26-34; column 5 lines 44-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Ahmed to Mizutani, in order to ensure that a packet is properly transmitted to a destination device (as suggested by Ahmed at column 2 lines 1-9, lines 18-21).

7. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani in view of Yaron (U.S. Patent 6,496,189, cited in previous action).

As to claim 28, Mizutani fails to disclose that the data packet includes streaming data as claimed. Yaron teaches that the data packet includes streaming data (see column 2 lines 13-35). Therefore, it would have been obvious to one of ordinary skill in

the art at the time of the invention to provide the above teaching of Yaron to Mizutani, in order to transmit more information in real time.

Response to Arguments

8. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sharman (H1641) and Ahmadi (5,533,026) disclose routing table including location data of the mobile devices.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen T Vo whose telephone number is (571) 272-7901. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571)272-7899. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nguyen Vo


6-6-2005

NGUYENT.VO
PRIMARY EXAMINER